

A2
concl'd

photons, emission of photons, wavelength conversion of photons, guiding of photons, diffraction of photons, refraction of photons, superimposing photons, generation of photon interference and linear, elliptic or circular polarization of photons.

A3

16. (Amended) A photonic device according to claim 15, wherein splitter comprises a light amplifying material amplifying light from said light source.

Please add new claims 51-57 as follows:

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--51 (New) A photonic device comprising:
a first section including an optical material,
a second section including an optical material,
with an area of said first section and an area of said second section abutting each other
and
at least a part of said first area and a part of said second area defining a low temperature bonding area,
wherein said photonic device defines a three-dimensional waveguide structure.

52. (New) The photonic device according to claim 51, defined by a plurality of optical elements which are provided in a three-dimensional arrangement.

53. (New) The photonic device according to claim 52, wherein at least some of said optical elements are cubes.

(b) Rev 45.
54. (New) The photonic device according to claim 51, comprising optical waveguides extending in three dimensions providing waveguiding in three dimensions.

55. (New) A photonic device comprising:
a first section including an optical material,
a second section including an optical material, with an area of said first section and an area of said second section abutting each other,
wherein at least a part of said first area and a part of said second area define a low

temperature bonding area [comprising a cured phosphorous-containing solution.]

56. (New) A photonic device comprising:

a first section including an optical material,

a second section including an optical material, with an area of said first section and an area of said second section abutting each other,

wherein at least a part of said first area and a part of said second area define a low temperature bonding area comprising a condensed phosphate layer.

57. (New) A photonic device according to claim 56, wherein the condensed phosphate layer is a P-O-P layer.--
